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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,921	09/29/2000	Andrew Harvey	50325-0126	8996

29989 7590 02/19/2004

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EXAMINER

SHAW, JOSEPH D

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/675,921

Applicant(s)

HARVEY ET AL.

Examiner

Joseph D Shaw

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - a. As per claim 32, the limitation "the resolved configuration information" is recited in line 8. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:  
  
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
4. Claims 1, 12-13, 15-17, 22, 24-28, and 30-31 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. The claim limitation states zero or more parameters. Configuring zero parameters is equivalent to a device that does no configuring and has no utility.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (6,195,694) in view of Tittel et al. (XML for Dummies).

b. As per claim 1, Chen teaches the steps of:

receiving a request from a network device to provide configuration information (col. 8, lines 30-40);

retrieving a template describing device configuration, wherein the template describes zero or more parameters that may receive values specific to a particular device (HTML file; Fig. 5; col. 9, lines 17-42);

retrieving zero or more values of parameters specific to the device (embedded programs that call local APIs in order to configure the device; Fig. 5; col. 8, lines 55-60; col. 9, lines 20-25; col. 10; lines 1-11); and

creating and storing a device specific instance of the configuration information based on the template and the values of parameters (custom HTML page with embedded control programs; Fig. 5; col. 9, lines 17-42).

However, the Chen invention does not explicitly teach conforming the device specific instance to an Extensible Markup Language Document Type

Definition (XML DTD), comprising one or more XML tags that delimit the configuration information. Rather Chen teaches an HTML approach. Tittel teaches that XML is an increasing popular language over HTML that utilizes Document Type Definitions to define the rules for XML documents (page 14, lines 1-4; page 18, lines 27-36). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the HTML documents in Chen's invention with XML documents and their DTDs, as taught by Tittel, because XML supports a richer set of document elements and applies better to various publishing media, as taught by Tittel (page 14, lines 1-4).

c. As per claims 2-3, Chen discloses the claimed invention modified by Tittel as described above. Furthermore, Chen teaches the steps of:

providing the configuration information to the network device over a reliable transport protocol that assures the entire configuration information is received at the network device (server serves application file to browser, uses HTTP, well known in the art that HTTP can communicate over TCP/IP to increase reliability; col. 8, lines 30-40).

However, the modified Chen invention does not explicitly teach testing the configuration information to determine whether it is well formed with respect to the XML DTD. Tittel teaches testing the configuration information to determine whether it is well formed with respect to the XML DTD (page 77; lines 13-32). It would have been obvious to one of ordinary skill in the art at the time of the

invention to include testing the configuration information to determine whether it is well formed with respect to the XML DTD, as taught by Tittel, in the modified Chen invention because XML is not as lenient as HTML and errors with the document will cause the document not to be passed along to the application, as taught by Tittel (page 77; lines 13-32).

d. As per claim 8, Chen discloses the claimed invention modified by Tittel as described above. Furthermore, Chen teaches the steps of:

applying the configuration to the network device (content of the file is executed line by line to invoke APIs to configure the device; col 8, lines 30-60).

However, the modified Chen invention does not explicitly teach receiving a user request to cancel application of the configuration information and restoring the network device to its state prior to application of the configuration information. "Official Notice" is taken that both the concept and advantages of receiving a user request to cancel installation and restoring the device to its original setting are well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cancel option for users to return the device to its original configuration because users can then change their mind about configuring the device without having to reconfigure the device a second time.

e. As per claims 9-11, Chen discloses the claimed invention modified by Tittel as described above. Furthermore, Chen teaches the step of receiving a request comprising:

receiving an HTTP request (col. 8, lines 30-35) that identifies an Active Server Page (ActiveX; Fig. 9; col. 19, lines 61-68) or Java Servlet (Java applet; col. 9, lines 34-43) of a configuration service that can provide configuration information and that includes a unique identifier of the network address (known in the art that an HTTP request contains two IP addresses, one the identifier of the network device requesting, and the other the identifier of the server providing configuration).

7. Claims 4-5 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (6,195,694) in view of Tittel et al. (XML for Dummies), and further in view of Malik et al. (5,832,503).

f. As per claims 4-5, Chen discloses the claimed invention modified by Tittel as described above. Furthermore, Chen teaches the steps of:

at the network device, applying the configuration to the network device (content of the file is executed line by line to invoke APIs to configure the device; col 8, lines 30-60).

However, the modified Chen invention does not explicitly teach first, at the network device, syntax checking the configuration information to determine

whether configuration commands therein conform to a command language that is understood by the network device. "Official Notice" is taken that both the concepts and advantages of ensuring program code is syntactically correct before executing the code are well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to include syntax checking at the network device in the modified Chen invention because the execution of code that is not syntactically correct can provides results that are unpredictable and detrimental.

However, the newly modified Chen invention does not explicitly teach when a syntax error is detected during the syntax checking step, publishing an event that reports the syntax error using an event service. Malik teaches generating alarms to an event log to indicate whether or not configuration was successful (col. 2, lines 32-35; col. 9, lines 48-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to include publishing the results of configuration, as taught by Malik, in the modified Chen invention because a user then can view the results of configuration, as taught by Malik (col. 9, lines 48-51) allowing the user to make decisions based upon the results.

g. As per claims 12 and 13, Chen discloses the claimed invention modified by Tittel as described above. However, the modified Chen invention does not explicitly teach the steps of retrieving a reference to a template describing the

configuration information from a directory service and retrieving the template from a configuration server based on the received reference. Wherein the template comprises zero or more parameters that may receive values specific to a particular device, and wherein the steps of receiving zero or more values of parameters specific to the device comprises the step of retrieving a container object associated with the network device from the directory and obtaining the values of parameters from directory objects contained within the container object. Malik teaches selecting a template from a database (retrieving a template from a configuration server; col. 7, lines 24-27; Fig. 5). It is inherent that in the Malik invention a reference to the location of templates was received (memory address, database location, etc.). Malik also teaches retrieving a model type (container object) associated with the network device that contains attribute values (values of parameters) used to configure the device (col. 7, lines 28-32; Fig. 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include retrieving a template and configuring it with parameters from a container object representative of the network device, as taught by Malik, in the modified Chen invention because container objects provide a level of object-oriented topology to the network, wherein a set of network devices can be associated with one single model type, as taught by Malik (col. 2, lines 36-50).

h. As per claim 14, Chen discloses the claimed invention modified by Tittel and Malik as described above. Furthermore, Tittel teaches that syntax checking comprises:

parsing one or more configuration commands within the configuration information using a parser of an operating system that is executed by the network device (validating parser validates the document and passes it to the browser if valid; page 77, lines 18-21).

i. As per claims 15-16, Chen discloses the claimed invention modified by Tittel as described above. While the modified Chen invention teaches creating a device-specific instance of the configuration based upon a template and values of parameters that conforms to an XML DTD, comprising one or more XML tags to delimit configuration information, no mention is made about the configuration being a partial configuration or providing the configuration information to a plurality of devices. Malik teaches determining what attributes of a model type are of interest for configuring (partial configuration; col. 7, lines 8-15; Fig. 6) and providing the configuration to multiple network devices (col. 2, lines 25-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to include providing partial configuration information and provide it to a plurality of devices and configuring those devices, as taught by Malik, in the modified Chen invention because partial configuration prevents unnecessary reconfiguration of already configured parameters and applying configuration

information to multiple devices concurrently saves time when configuring multiple devices.

However, the newly modified Chen invention does not explicitly teach publishing a partial configuration trigger event to an event service to which the plurality of network devices subscribe and having the network devices request and receive configuration information in response to the event. Suarez teaches that event services can be used to monitor environments and react accordingly, allowing agents to define reactions to certain events (col. 21, lines 35-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to include an event service, as taught by Suarez, in the modified Chen invention to allow for the notification of configuration information made available to network devices so that they can request the new configuration.

8. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (6,195,694) in view of Tittel et al. (XML for Dummies), further in view of Malik et al. (5,832,503), and further in view of Suarez (5,790,789).

j. As per claims 6-7, Chen discloses the claimed invention modified by Tittel as described above. However, the modified Chen invention does not explicitly teach providing the configuration information to a plurality of network devices and applying the configuration information the network devices concurrently. Malik teaches that multiple configuration files can be sent to configure multiple

network devices (col. 2, lines 25-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to include providing configuration information to a plurality of devices and configuring those devices, as taught by Malik, in the modified Chen invention because applying configuration information to multiple devices concurrently saves time when configuring multiple devices.

However, the newly modified Chen invention does not explicitly teach first, at one of network devices, syntax checking the configuration information to determine whether configuration commands therein conform to a command language that is understood by the network device. "Official Notice" is taken that both the concepts and advantages of ensuring program code is syntactically correct before executing the code are well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to include syntax checking at the network device in the modified Chen invention because the execution of code that is not syntactically correct can provides results that are unpredictable and detrimental.

However, the newly modified Chen invention does not explicitly teach upon successful syntax checking (successfully receiving configuration information), generating an event to an event service to which the plurality of network devices subscribe, wherein the event announces that the configuration commands conform to a syntax, and only applying the configuration to the

plurality of devices when the event is received. Suarez teaches that event services can be used to monitor environments and react accordingly, allowing agents to define reactions to certain events (col. 21, lines 35-50). "Official Notice" is taken that both the concepts and advantages of testing configuration information on one device before applying it to many devices are well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to include an event service, as taught by Suarez, in the modified Chen invention to allow the testing of one device before applying configuration to many because if configuration commands are faulty, only one device has the chance of entering an error state, instead of the entire network.

9. Claims 17-31 recite limitation similar to the limitations in claims 1-16 and are rejected under the same reasoning as claims 1-16.

10. Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al. (6,370,163) in view of Malik et al. (5,832,503).

k. As per claim 32, Shaffer teaches the steps of:

receiving a request for network topology information from an application (first IP telephone transmits a network topology query to the server; col. 6, lines 42-45); and

providing the resolved configuration information to a configuration agent within the application that is configured to re-configure the application to operate with the then-current network information (server transmits network topology data used in configuring the first IP telephone; col. 6, lines 45-51).

However, the Shaffer invention does not explicitly teach retrieving a template of network topology information and resolving elements of the topology into application-specific values resulting in a resolved topology information. Malik teaches providing configuration information by selecting a template and then selecting model specific attribute values (col. 2, lines 14-28; col. 7, lines 23-32; Fig. 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a template that can be filled with application-specific values, as taught by Malik, in the configuration system of Shaffer because templates provide a level of object-oriented topology to the network, wherein a set of network devices can be associated with one single model type, as taught by Malik (col. 2, lines 36-50), thus simplifying configuration.

I. As per claim 33, Shaffer discloses the claimed invention modified by Malik as described above. However, the modified Shaffer invention does not explicitly teach application-specific syntax checking the elements of the template. "Official Notice" is taken that both the concepts and advantages of ensuring program code is syntactically correct before executing the code are well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the

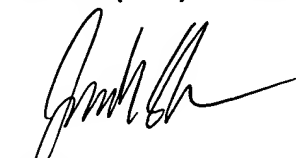
invention to include syntax checking in the modified Shaffer invention because the execution of code that is not syntactically correct can provides results that are unpredictable and detrimental.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Shaw whose phone number is 703-305-0094. The examiner can normally be reached on Monday - Thursday and alternate Fridays, 7am - 4pm.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 703-305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Shaw



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PRIMARY EXAMINER